

IN THE CLAIMS:

1. (currently amended) A system including a multi-tier application architecture having a middletier, said system comprising:

a framework to mediate between an application within a front-end tier and the middletier, wherein the framework is configured to:

allow the middletier to execute an object fetched by the application from a cache;

when the execution of the object fails, repeatedly refresh the object within a limited number of retries;

when the object refresh succeeds, return the object to the cache and again allow the middletier to execute the object; and

when the object refresh does not succeed within the limited number of retries, quit the application in a fail-safe way.

2. (previously presented) The system according to claim 1, wherein the framework is configured to allow a user to specify the limited number of retries.

3. (previously presented) The system according to claim 2, wherein the framework is configured to allow the user to specify a time interval between the retries.

4. (currently amended) The system according to claim 1, wherein the framework has its operations visualized are visible to a user.

5. (previously presented) The system according to claim 1, further including a watchdog configured to resume normal operations when the middletier crashes.

6. (previously presented) The system according to claim 5, wherein the watchdog is configured to recover the middletier based on a result of periodical polling.

7. (previously presented) The system according to claim 5, wherein the watchdog is configured to recover the middletier based on notification from the framework.

8. (previously presented) The system according to claim 1, wherein the framework comprises a logic controller, a detector, a refresher, and a quitter.

9. (currently amended) A method of executing an application, said method comprising:

transmitting an object used by the application [[from]] within a first tier to a second tier;

executing a logic program at the second tier, wherein the logic program corresponds to the transmitted object;

detecting an execution status of the logic program at the first tier, said detecting comprising:

detecting when the execution of the logic program fails such that the object becomes stale;

repeatedly refreshing the object within a limited number of retries; and

if said refreshing succeeds, then returning the object to the first tier and transmitting a second object to the second tier from the first tier; and

if said refreshing does not succeed within the limited number of retries, then quitting the application in a fail-safe way.

10. (previously presented) A method in accordance with Claim 9 wherein transmitting an object used by the application further comprises transmitting the object from a cache within the first tier to the second tier.

11. (previously presented) A method in accordance with Claim 10 wherein transmitting an object from a cache further comprises transmitting the object from the cache through a framework within the first tier to the second tier.

12. (previously presented) A method in accordance with Claim 9 wherein detecting an execution status of the logic program at the first tier further comprises detecting an execution status of the logic program at a framework within the first tier.

13. (previously presented) A method in accordance with Claim 9 further comprising, when the second tier crashes, resuming normal operation using a watchdog.

14. (previously presented) A method in accordance with Claim 13 wherein resuming normal operation further comprises resuming normal operation based on periodical polling of the second tier.

15. (previously presented) A method in accordance with Claim 13 wherein resuming normal operation further comprises recovering the second tier based on notification from a framework within the first tier.

16. (currently amended) A computer program embodied on a computer readable medium, said computer program comprising a code segment that:

transmits an object used by an application [[from]] within a first tier to a second tier;

executes a logic program at the second tier, wherein the logic program corresponds to the transmitted object;

detects an execution status of the logic program at the first tier, wherein the code segments are configured to detect by:

detecting detect when the object becomes stale;

repeatedly refreshing refresh the object within a limited number of retries; and

if said refreshing succeeds, then returning return the object to the first tier and transmitting transmit a second object to the second tier from the first tier; and

if said refreshing does not succeed within the limited number of retries, then quitting quit the application in a fail-safe way.

17. (previously presented) A computer program in accordance with Claim 16 further comprising a code segment that prompts a user to specify the limited number of retries.

18. (previously presented) A computer program in accordance with Claim 17 further comprising a code segment that prompts a user to specify a time interval between the each of the limited number of retries.

19. (previously presented) A computer program in accordance with Claim 16 further comprising a code segment that, when the second tier crashes, resumes normal operation based on periodical polling of the second tier.

20. (previously presented) A computer program in accordance with Claim 16 further comprising a code segment that, when the second tier crashes, recovers the second tier based on notification from a framework within the first tier.